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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,837	01/31/2002	Keith R. Berding	K35A1043	4317

35219 7590 03/03/2004

WESTERN DIGITAL TECHNOLOGIES, INC.  
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EXAMINER

WATKO, JULIE ANNE

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/062,837

Applicant(s)

BERDING ET AL.

Examiner

Julie Anne Watko

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 6-11, 13 and 14 is/are allowed.
- 6) ☒ Claim(s) 5 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 5 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation “the locking spring arm is non-elastic so that the locking spring arm remains disengaged from the hub when the current applied to the stator coil is turned off.” The limitation “disengaged” is inconsistent with claim 1, which requires that “the locking spring arm engages the hub when no current is applied to the stator coil” in lines 8-9.

Claim 12 recites the limitation “the locking spring arm is non-elastic so that the locking spring arm remains disengaged from the hub when the current applied to the stator coil is turned off.” The limitation “disengaged” is inconsistent with claim 8, which requires that “the locking spring arm engages the hub when no current is applied to the stator coil” in lines 5-6.

***Allowable Subject Matter***

3. Claims 1-4, 6-11 and 13-14 are allowed.
4. Claims 5 and 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter:

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The prior art of record neither shows nor suggests a stator coil wrapped around a stator tooth in combination with a locking spring arm having a fixed base, wherein: the locking spring arm engages the hub when no current is applied to the stator coil; and the locking spring arm disengages from the hub when current applied to the stator coil generates a magnetic flux which pulls the locking spring arm away from the hub.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Honda (JP 57-13943) shows a motor comprising rotor core 5, a pair of magnetic members 26, a pair of brakes 27 and braked material 25, wherein current through a stator coil 4 generates a magnetic flux to attract 26 to core 3 so as to disengage brake 27 to release rotary shaft 12, wherein when no current is in stator coil 4, the attraction disappears between core 3 and magnetic member 26, such that the shaft is braked and shaft rotation is prevented; however, the reference is silent regarding any motivation to fix a base of the brake, and the reference is further silent regarding a locking spring arm as the brake.

Katcher et al (US Pat. No. 6177748 B1) shows a brake "shoe 70 received within drum 68" (see col. 10, lines 6-36, especially lines 17-18; see also Fig. 4; see also col. 4, lines 27-48).

Niculescu (US Pat. No. 3626220) shows an electric motor comprising a brake having a movable part 18 and a fixed part 19, and spring 29 (see Fig. 1; see also col. 2, line 63-col. 3, line 18, see also col. 1, lines 20-31).

Feller, Jr. (US Pat. No. 5306989) shows an electric motor brake (see especially Figs. 1 and 5) comprising brake disk 30, friction member 24, and resilient member 26.

Toshiba (JP 2001-273744) shows a magnetic disk unit, wherein one embodiment comprises a spindle motor locking mechanism at a non-contact state due to magnetic suctioning, wherein locking a spindle motor with magnetic flux provides a predetermined space between hub 6 and lock magnet 210 to prevent generation of dust on disk 12. Another embodiment of Toshiba includes stopper mechanism 310, stopper member 311 and electromagnetic control unit 320 controlling stopper mechanism 310, such that during non-operation, 311 is controlled to contact countersection of hub 6, 320 stops supply of power to 310, and 311 is pushed up to 6 by a spring, so as to lock motor 13. During operation, 320 supplies power so that 311 moves away from 6.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

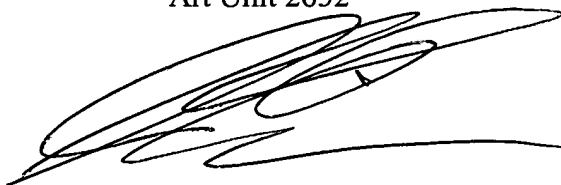
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Anne Watko whose telephone number is (703) 305-7742. The examiner can normally be reached on Sat & Mon until 9PM, Wed & Fri until 5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Julie Anne Watko  
Primary Examiner  
Art Unit 2652

March 1, 2004  
JAW

A handwritten signature in black ink, appearing to read 'Julie Anne Watko', with a long horizontal flourish extending to the right.